

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for producing tools or blanks for tools of reduced dimensions for use in the assembly and interconnection of semiconductor chips, comprising ~~the steps of~~:
 - a. providing at least one sinterable material in fine particulate form and at least one degradable organic thermoplastic material,
 - b. mixing an accurately determined volume of said sinterable particulate material or materials with an accurately determined volume of said thermoplastic material or materials to form a thermoplastic compound,
 - c. forming said thermoplastic compound into green semiconductor wire bonding tools or blanks, and
 - d. extracting substantially all of the organic thermoplastic material from said green tools or blanks and sintering the thus obtained organic-free preforms into dense end products of reduced dimensions.
2. (Currently Amended) The method of ~~Claim 1 whereby~~ claim 1, wherein the dense end products ~~the reduced dimensions may include~~ include boreholes having diameters below 10 micrometers.
3. (Currently Amended) The method of ~~Claim 2 whereby the~~ claim 1, wherein said sinterable particulate material or materials are selected from the class of metals ~~and their alloys~~, ceramics ~~and their alloys~~ and mixtures of metals and ceramics ~~or their alloys~~.
4. (Currently Amended) The method of ~~Claim 3 whereby the~~ claim 1, wherein said sinterable material or materials include micron-sized or nanometer-sized particulates.

5. (Currently Amended) The method of ~~Claim 4 whereby the~~ claim 1, wherein said degradable organic thermoplastic ~~ingredient or ingredients~~ material or materials are selected from the class of polyolefins, waxes, plasticizers, greases, oils, surfactants and mixtures of these.

6. (Currently Amended) The method of ~~Claim 5 whereby~~ claim 1, wherein the tools ~~semiconductor wire bonding tools~~ include semiconductor wire bonding capillaries ~~and bonding wedges~~ or blanks for ~~these~~ the semiconductor wire bonding capillaries.

7. (Currently Amended) The method of ~~Claim 5 whereby the~~ claim 1, wherein ~~said~~ tools of reduced dimensions include to fabricate micromolds for semiconductor wire bonding tools or blanks ~~and the products made therewith~~ for the semiconductor wire bonding tools.

8. (Canceled)

9. (Canceled)

10. (New) The method of claim 1, wherein the dense end products include boreholes having diameters of about 10 micrometers.

11. (New) The method of claim 1, wherein the said tools include semiconductor wire bonding wedges or blanks for the semiconductor wire bonding wedges.

12. (New) The method of claim 6, wherein the dense end products include boreholes having diameters of about 10 micrometers.

13. (New) The method of claim 1, wherein the action of extracting substantially all of the organic thermoplastic material from said green tools or blanks and sintering the thus

obtained organic-free preforms into dense end products of reduced dimensions results in dense end products that include boreholes having diameters of about 10 micrometers.

14. (New) The method of claim 1, wherein the action of extracting substantially all of the organic thermoplastic material from said green tools or blanks and sintering the thus obtained organic-free preforms into dense end products of reduced dimensions results in dense end products that include boreholes having diameters of below 10 micrometers.

15. (New) The method of claim 1, wherein said sinterable material or materials include nanometer-sized particulates, and wherein the action of extracting substantially all of the organic thermoplastic material from said green tools or blanks and sintering the thus obtained organic-free preforms into dense end products of reduced dimensions results in dense end products that include boreholes having diameters of below 10 micrometers.